REMARKS

Reconsideration of the present application is respectfully requested.

The rejection of claim 6, 9 and 10 under 35 USC 103(a) as being unpatentable over Okamura in view of Sri-Jayantha et al. is respectfully traversed.

Amended claim 6 features "the compensation signal based on ... a phase response of at least the servo circuit." That feature is nowhere taught or suggested in Okamura or Sri-Jayantha et al., combined or alone. Since the modification of Okamura with Sri-Jayantha et al., if proper, would still not have this feature, claim 6 is not oblivious. As a result, claim 6 is allowable, along with dependent claims 9 and 10.

The rejection of claim 1, 2, 4, 8 and 12 under 35 USC 103(a) as being unpatentable over Okamura and Sri-Jayantha et al. as applied to claims 6, 9 and 10 and further in view of Waugh et al. is respectfully traversed.

Amended claim 1 features a compensation signal based on a loop matching. Okamura, Sri-Jayantha et al. and Waugh et al., either alone or combined, do not teach or suggest that feature. Thus, claim 1 is not obvious and is allowable. Claims 2, 4, 8 and 12 are also allowable due to their respective dependence on allowable claims 1 and 6.

The rejection of claim 7 under 35 USC 103(a) as being unpatentable over Okamura and Sri-Jayantha et al. as applied to claims 6, 9 and 10 and further in view of Ottesen et al. is respectfully traversed.

As explained above, claim 6 is allowable over Okamura and Sri-Jayantha et al. because they do not teach or suggest, alone or in combination, "the compensation signal based on ... a phase response of at least the servo circuit." Ottesen et al. do not overcome that deficiency. Claim 6 is still allowable over this additional reference. As such, dependent claim 7 is also allowable.

The rejection of claims 13 and 14 under 35 USC 112, first paragraph, as failing to comply with the written description requirement is respectfully traversed.

Claim 13 features "...independent of whether the frequency is a resonance mode of the controlled system." The Office Action is incorrect that the written specification only supports a frequency that is dependent on a resonance mode of the controlled system. In addition to that, Fig. 6 of the present application shows a disturbance signal d being input to the summing junction 210. The specification of the present invention discloses at page 8, lines 8-11, that "it will first be convenient to consider the oscillation of a selected actuator arm 114 at concluding

portions of a seek as a disturbance signal d injected into the PES as shown at summing junction 210." Also, see Equation 3 and page 14, lines 3-6, which discloses "the application of the compensation signal produces a notch 232 in an error sensitivity function 230 relating the position error signal to an actuator arm oscillatory disturbance, wherein the notch is nominally centered at the frequency of oscillation of the actuator arm." Therefore, this feature of claim 13 is disclosed in the written specification as required by the written description requirement. Claim 14 also meets that requirement through its dependency on claim 13 that meets that requirement.

The rejection of claims 13-17 as being anticipated by Sri-Jayantha et al. is respectfully traversed.

Amended claim 13 features that the minimizing is based in part on a loop matching. Claim 15, as amended, features that the increasing is based in part on a phase response of the control system. These features are supported in the specification at page 10, lines 18-26:

> The value α represents the magnitude of the nominal closed loop gain of the servo loop, and the value φ represents the phase response of the nominal closed loop gain of the servo loop. The parameters α and φ are determined by measuring the frequency response of the servo loop (in the presence of the disturbance, as discussed below) and then used as a priori knowledge to provide a loop matching effect. The resulting NLMS update law of Equations (6) and (7) exhibits dependable exponential convergence of the parameters a(k) and b(k). Prior art runout cancellation filters do not employ such loop matching, and can therefore be prone to divergence for larger learning rates.

Sri-Jayantha et al. do not identically show either of those parameters of loop matching. Therefore, those features of claims 13 and 15 are not identically shown. Consequently, claims 13 and 15 are not anticipated and are allowable. Claims 14 and 16-17 are also allowable due to their respective dependence on allowable claims 13 and 15.

In light of the foregoing remarks, it is believed that the application is in condition for allowance and thus prompt allowance is respectfully solicited. Should the Examiner have any remaining questions, he is encouraged to contact the undersigned attorney at the telephone number below to expeditiously resolve such concerns.

Respectfully submitted,
Seagate Technology LLC

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Date

David K. Lucente, Reg. No. 36,202
Seagate Technology LLC
Intellectual Property Department – COL2LGL
389 Disc Drive
Longmont, CO 80503
(720) 684-2295 (telephone)
(720) 684-2588 (facsimile)